REMARKS

Claims 1, 2, 4, 6-23, 25, 27, 28, 30-43 and 45-47 are pending. In the Final Office Action mailed on October 5, 2005, the Examiner rejected claims 1, 2, 4, 6-23, 25, 27, 28, 30-43 and 45-47 under 35 U.S.C. § 103(a) over U.S. Patent No. 5,490,241 to Mallgren et al. ("Mallgren"). Applicants respectfully traverse the Examiner's rejections. Further examination and review in view of the remarks below are respectfully requested.

Applicants are grateful to the Examiner for the courtesy extended to Applicants during the November 15, 2005, telephonic interview.

Applicants' techniques are directed to dynamically establishing and displaying gridlines to assist a user position and/or reposition objects in a drawing. The techniques may be incorporated into a drawing program that locates the dynamic gridlines on the display using zones or bands that are located above, below, and/or to the sides of an object that the user is currently dragging to a new location on the display. The drawing program determines a likely destination of a next user-placed object based on the present location of objects already present in the drawing. Upon determining the likely destination, the drawing program displays a dynamic gridline to the user. If the user decides to align the next user-placed object to these objects already present in the drawing, the user drags the next user-placed object near the displayed gridline, and the drawing program automatically aligns the next user-placed object to the displayed gridline.

All of the claims stand rejected over Mallgren. In contrast to Applicants' techniques for dynamically establishing and displaying gridlines to assist a user position and/or reposition objects in a drawing, Mallgren merely describes a technique for providing a user the ability to create user-specified objects in linear, angular, paraline and perspective geometries. (see Abstract and col. 3, lines 19-36). Mallgren provides stationary and moving polar grids which restrict a drawing to a user-specified geometry. (col. 5, line 18-col. 6, line 2). According to Mallgren, the construction of objects in a drawing is accomplished by the placement of control points. When drawing, the user is free to move

the cursor to any point on the drawing surface, however, when the user places a control point, for example, by clicking on a button on a mouse, the position of the cursor is translated into the nearest grid point. "Gridding" the control point to the nearest grid point assists the user in constructing objects which must maintain precise linear, angular, paraline, or perspective geometries. (emphasis added) (col. 6, lines 3-13).

Figs. 4A-4I in Mallgren clearly illustrate the operation of a moving grid for constructing an object in a particular geometry. In the illustration of the moving grid, the origins of the moving grid (i.e., the origins of the grid as the grid is moved to new locations) move in response to control point placements. (col. 5, lines 37-39). In Fig. 4A, the control point (indicated by the character "+") causes a paraline grid to be displayed. The origin of the displayed paraline grid starts out at the location of the control point. To draw one side of an object – i.e., the parallelogram illustrated in FIGS. 4A-4I – the user moves the cursor from the present origin of the displayed paraline grid up one of the displayed gridlines for a desired distance and places a new control point at the end of the side of the object that is being drawn (as shown in Fig. 4B). The side of the object that is being drawn is gridded to the grid line, and the position of the cursor (i.e., the new control point) is gridded to the nearest grid point on the grid line. The new control point causes a new paraline grid to be displayed. The origin of the new paraline grid is located at the location of the new control point – i.e., at the end of the side of the object that was just drawn – as illustrated in Fig. 4C. Thus, in Mallgren, the displayed grid is moved when a side of an object is drawn. From this new origin, and using the newly displayed paraline grid, the user is able to draw the next side of the object (as shown in FIG. 4D). When the next side is drawn, a new paraline grid, having an origin located at the new control point located at the end of the side of the object which was just drawn, is displayed (as shown in FIG. 4E). The user is then able to continue drawing the object from the new origin of the displayed paraline grid by moving the cursor along or near a desired gridline to place a new control point, which causes a new paraline grid, and which has an origin at the new control point, to be displayed.

Claims 1, 2, 4 and 6-8 each include the features of (1) identifying a first object and a second object previously placed on the display within a band of a selected object as the selected object is dragged to a location on the display, and (2) displaying a select one of these two gridlines in response to the selected object being dragged to a location, where the gridlines assist a user in repositioning the selected object on the display with equal spacing between the first object, the second object, and the selected object. Mallgren does not disclose, suggest or teach identifying a first object and a second object previously placed on the display within a band of a selected object as the selected object is dragged to a location on the display, nor does it disclose, suggest or teach displaying a select one of these two gridlines in response to the selected object being dragged to a location, where the gridlines assist a user in repositioning the selected object on the display with equal spacing between the first object, the second object, and the selected object.

In the present Office Action, the Examiner responded to Applicants' argument in its July 19, 2005, amendment that Mallgren not disclose, suggest or teach displaying a gridline in response to the selected object being dragged to a location, by stating that "[t]he manipulation of the control point ultimately manipulates the new object's control point and thus aids in determining its position relative to other objects in the display including the first object and the second object."

Applicants respectfully disagree. In contrast to the Examiner's assertion, Mallgren's control point is not used to align the new objects with previously drawn objects. As discussed above, Mallgren's control point serves as an origin of a moving grid and the gridlines of the grid assist the user in drawing and editing geometric shapes. (col. 5, lines 18-25). Mallgren's moving grid is displayed based on the placement of control points, and not based on other objects that may already be on the display. Applicants can find in Mallgren no disclosure or suggestion for identifying a first object and a second object previously placed on the display within a band of a selected object as the selected object is dragged to a location on the display, or displaying a gridline that assists a user in

repositioning the selected object on the display with equal spacing between the first object, the second object, and the selected object.

With regard to Mallgren's FrameObject, this is a record that contains information (e.g., the default properties such as line, area, point, and text) that describes the properties of an object in a frame on the display. While Mallgren states that the FrameObject contains pointers which point to the top-most and bottom-most objects in the frame, Mallgren does not contain any further discussion regarding the operation of these pointers which point to the top-most and bottom-most objects in the frame, and the purpose of the top-most and bottom-most objects in the frame. Rather, Mallgren only states that the FrameObject is one of the main data structures for gridding. (col. 9, line 1-col. 10, line 31).

Claims 9-15, 40 and 41 each include the feature of determining a likely destination for a selected object being moved in a drawing that has two other objects situated on the display so that there is a separation between them, where the likely destination for the selected object is determined so that the distance between the selected object and one of the other two objects is the same as the distance between the two other objects. As discussed above, Mallgren performs a gridding operation to position a control point to the nearest grid point (col. 6, lines 3-13), and the grid is displayed based on the placement of control points, and not based on other objects that may already be on the display. According to Mallgren's gridding operation, the destination of the control point is the nearest grid point, which is in contrast to the destination being determined so that the distance between the selected object and one of the other two objects is the same as the distance between the two other objects. Moreover, Mallgren's top-most and bottom-most objects in the frame which are identified in the FrameObject are only properties of the object and are not used to determine a likely destination of the object. Applicants can find in Mallgren no such disclosure or suggestion.

The remaining claims each include similar features of positioning an object in a drawing in reliance or relationship to other objects in the drawing. For example, claims 16-

23 include the common feature of determining a location for a temporary gridline relative to the placed object by adding a default avenue distance to the thickness of the placed object and dynamically displaying a temporary gridline that facilitates equal spacing between a plurality of objects while a selected object is moved within a drawing. Likewise, claims 25, 27, 28, 30-35, 42, 43 and 45 include the common feature of establishing and displaying temporary gridlines spaced a distance D and a distance 2D from a placed object, where D is computed by adding the width of the placed object and a default avenue distance, and the gridlines are displayed as the selected object is moved in the drawing. Similarly, claims 36-39 include the common feature of determining perpendicular gridlines intersecting at a point that indicates a position for a selected object, where the selected object is linearly aligned with two other identified objects, and one of the two identified objects is halfway between the other identified object and the selected object; claim 46 includes the feature of a device for displaying two calculated gridlines, one for aligning a selected object with a placed object and one for positioning the selected object at a predetermined distance from the placed object, where the predetermined distance is the distance between this placed object and another placed object; and claim 47 includes the feature of perpendicular gridlines intersecting at a point that indicates a position for a selected object so that the object is aligned with and uniformly spaced from other objects previously placed on the page, where at least one of the gridlines be displayed when the selected object is dragged within a certain distance of a gridline. Mallgren not disclose, suggest or teach any of the aforementioned features recited in claims 16-23, 25, 27, 28, 30-39, 42, 43 and 45-47.

Conclusion

In view of the foregoing, Applicants respectfully submit that claims 1, 2, 4, 6-23, 25, 27, 28, 30-43 and 45-47 are allowable and ask that this application be passed to allowance. If the Examiner has any questions or believes a telephone conference would expedite prosecution of this application, the Examiner is encouraged to call the undersigned at (206) 359-8000.

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Respectfully submitted,

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